

Draft Charter

Science Steering Group for North American Carbon Program

Introduction

The North American Carbon Program (NACP) is a multidisciplinary research program to obtain scientific understanding of North America's carbon sources and sinks and of changes in carbon stocks needed to meet societal concerns and to provide tools for decision makers. Successful execution of the NACP will require an unprecedented level of coordination among observational, experimental, and modeling efforts regarding terrestrial, oceanic, atmospheric, and human components. The NACP is supported by a number of different federal agencies through a variety of intramural and extramural funding mechanisms and award instruments. NACP will rely upon a rich and diverse array of existing observational networks, monitoring sites, and experimental field studies in North America and its adjacent oceans. Integrating these different program activities and maximizing synergy amongst them, will require expert guidance beyond the norm for large field programs in Earth system science and global climate change.

Role of NACP SSG

Overall Responsibilities and Interfaces. The NACP Science Steering Group (SSG) will provide scientific leadership for the NACP. The NACP SSG will interact closely with the Carbon Cycle Interagency Working Group (CCIWG) and the NACP Office¹. It will also interact with the Carbon Cycle Science Steering Group (CCSSG) and the Ocean Carbon and Climate Change Science Steering Group (OCCC SSG)², as needed. The NACP SSG will assist the CCIWG and NACP Office in implementing the NACP Science Plan, following the Science Implementation Strategy adopted in 2004 and working to assure that scientific returns are maximized.

Specific Scientific Responsibilities. The NACP SSG will be responsible for the scientific direction and strategies of the NACP and will work with the NACP Office to coordinate the scientific activities of NACP's components. The NACP SSG will address scientific research priorities, implementation priorities, and overall integration of the NACP. The NACP SSG will develop technical information for detailed science planning and program evolution and will guide the implementation and integration of scientific research. The NACP SSG will identify critical research gaps and program balance issues that require attention.

Specific Implementation Responsibilities. The NACP SSG will work with the NACP Office to outline coordination strategies for optimizing scientific synergy among NACP investigations and participating programs, projects, and networks. The NACP SSG will

¹ The NACP Office is in its final planning stages and will be constituted in early 2005.

² The OCCC SSG is being planned and will be constituted in early 2005.

address high-level issues concerning logistics, coordination of infrastructure, and data management from the perspective of maximizing scientific returns. Such issues may include: 1) coordination of measurements and activities within intensive field studies and experiments, 2) geographic distribution of research infrastructure, 3) timing and scheduling of activities, 4) compatibility of data sets and reporting formats, 5) measurement protocols and standards, 6) data sharing and archival of data and data products, and 7) optimization of existing infrastructure and networks for NACP.

Reporting. The NACP SSG will report formally to the CCIWG. Reports will be delivered to the CCIWG at least twice per year and more often, if needed. The NACP SSG is expected to interact frequently with the NACP Office in order to facilitate coordination and integration of NACP scientific implementation. Periodic briefings to the CCSSG and interactions with the OCCC SSG, with regard to research in the oceans adjacent to North America, also are expected.

NACP SSG Membership

Types of Members. The NACP SSG will consist of approximately 12-20 scientific leaders representing two groups of participants in NACP: 1) approved³ NACP science investigators and 2) major federal agency programs, projects, and networks⁴ participating, either in full or in part, in the NACP (e.g., AmeriFlux). While no strict allocation between types of participants is prescribed, it is anticipated that approximately one-half of the NACP SSG members will be selected to represent approved NACP science investigators and approximately one-half will be selected to represent major programs, projects, or networks.

Representatives of the Approved NACP Science Investigators. The members of the NACP SSG that represent the approved NACP science investigators will be appointed by the CCIWG. They will be selected on the basis of their scientific expertise, leadership qualities, and ability to represent the interests of the approved NACP science investigators. At the time of their appointment, they must be approved NACP science investigators.⁵

Representatives of Major Programs, Projects, and Networks. The members of the NACP SSG that represent the major federal agency programs, projects, and networks

³ A researcher becomes an “approved NACP science investigator” when the federal agency funding/sponsoring his/her research designates his/her investigation as an NACP investigation.

⁴ A “major program, project, or network” is defined as a coordinated effort involving many individual investigations or activities or one that involves large investments of resources to maintain and operate (while there is no hard financial threshold, generally, this would be in excess of \$1M/yr)

⁵ If a representative of the NACP science investigators on the NACP SSG ceases to be an approved NACP science investigator during his/her term on the NACP SSG, the situation will be evaluated jointly by the CCIWG and the NACP SSG. It is anticipated that in many cases it may be possible to extend his/her approved status (e.g., no-cost extension to a grant) through his/her term on the NACP SSG.

participating in the NACP will be designated by their respective agency sponsor. Each major program, project, or network identified by the CCIWG as contributing to NACP should be represented on the NACP SSG. Where appropriate, a single person may be designated to represent multiple programs, projects, or networks. Participation of such leaders will be subject to the agreement of their respective federal agency's or institution's senior management. It will be the responsibility of the CCIWG to secure this agreement in advance of inviting a representative of a major program, project, or network to join the NACP SSG.

Terms for Representatives of the Approved NACP Science Investigators. Initial appointees to the NACP SSG from the group of NACP science investigators will serve terms of two, three, or four years, as designated at the time of their appointment. Subsequent appointees to the NACP SSG from the group of NACP science investigators will serve terms of three years. . Nominations for new NACP SSG members from the group of NACP science investigators will be sought from the CCSSG, current NACP SSG members, and the CCIWG. The term of an NACP SSG member from the group of NACP science investigators may be extended one time for an additional three-year term. The NACP SSG Chair and the CCIWG will mutually agree to the selection of new members.

Terms for Representatives of the Major Programs, Projects, and Networks. Each member of the NACP SSG appointed to represent a major program, project, or network will serve as long as he/she continues in his/her science management leadership role (or roles) and their federal agency or institutional management agrees to his/her participation.

Qualifications of NACP SSG Members. Because of the unprecedented challenges anticipated in synthesis and integration of NACP science, it is crucial that the NACP SSG membership represent a broad and balanced range of expertise that encompasses many of the areas covered by the program. Specifically, the combined membership of the NACP SSG must: 1) have expertise in carbon cycle science in terrestrial, oceanic, atmospheric, and human systems; 2) reflect a balance among researchers specializing in modeling, observation (both remote sensing and *in-situ*), and experimental studies; 3) include an appropriate balance between scientists supported through intramural and extramural funding mechanisms; and 4) be drawn from all types of participating institutions (e.g., governmental, academic, private-sector institutions). Some overlap in membership between the CCSSG, OCCS SSG, and the NACP SSG will be acceptable.

Chair of NACP SSG

The Chair of the NACP SSG will be appointed by the CCIWG for a two-year term. The term of the Chair may be extended one time for an additional two-year term. One year prior to the expiration of the NACP SSG Chair's term, a decision will be made to either extend the term of a first-term Chair or to identify a Chair-designee to succeed him/her. At that time, the NACP SSG will make a recommendation to the CCIWG as to which option should be pursued. If a new Chair is recommended, nominations will be sought from the members of the NACP SSG, the CCIWG, and the CCSSG. All approved NACP

science investigators, including current NACP SSG members, will be eligible to serve as Chair. Depending on the option pursued, the CCIWG will either re-appoint the current NACP SSG Chair or appoint a new NACP SSG Chair after consulting with the Chair of the CCSSG and, if applicable, the retiring Chair of the NACP SSG. The Chair of the NACP SSG will serve as an *ex officio* member of the CCSSG.

NACP SSG Meetings

Frequent meetings (quarterly, monthly, or as needed) of the NACP SSG are expected. The NACP SSG will conduct most of its meetings as teleconferences and, nominally, will have two in-person meetings per year. One of these meetings may be planned in conjunction with a meeting of the CCSSG. Allowable travel and meeting expenses of the NACP SSG will be covered by the CCIWG and/or its member agencies.

Process for Amending this Charter

Amendments to this charter may be proposed by either the NACP SSG or the CCIWG and will be implemented once the CCIWG and NACP SSG come to a mutual agreement on the changes.⁶

⁶ It is anticipated that as NACP implementation proceeds and the NACP SSG gains experience in doing its work, this charter may need to be updated and/or modified. In particular, the blending of leaders from the group of approved NACP science investigators with program, project, and network leaders is viewed as an experiment – a new way of doing business to address NACP’s unique requirements for coordination and integration. If working together within a single NACP SSG turns out to be a less than optimal way of doing business, the NACP SSG and CCIWG should consider an alternative organizational structure for scientific leadership and coordination.